

**Appl. No. 10/520,340**  
**Amendment and/or Response**  
**Reply to Office action of 23 October 2006**

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**Amendments to the Drawing Figures:**

The attached drawing sheets include proposed changes to FIGs. 1 and 9e, and replace the original sheets including FIGs. 1, 2, and 9e-9h.

Attachment: Replacement Sheets

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**JAN 23 2007****REMARKS/DISCUSSION OF ISSUES**

By this Amendment, Applicants: amend the Abstract; revise the drawings; amend claims 1-4; and add claims 9-13.

Accordingly, claims 1-4 and 9-13 are pending in the application.

Reexamination and reconsideration are respectfully requested in view of the following Remarks.

**DRAWINGS**

By this Amendment, Applicants revise FIGs. 1 and 9e.

Accordingly, Applicants respectfully request that the objection to the Drawings be withdrawn.

**SPECIFICATION**

By this Amendment, Applicants amend the Abstract.

Accordingly, Applicants respectfully request that the objection to the Specification be withdrawn.

**CLAIM OBJECTIONS**

Applicants hereby amend claim 4 to provide proper antecedent basis for all recited claim elements.

Applicants thank the Examiner for the suggested claim amendments for claim 1, and the preamble of claims 2-4, but at this time Applicants decline to make such changes and respectfully traverse the objections to claims 1-4 for at least the following reasons.

M.P.E.P. § 2713.02 provides that:

*"The examiner's focus during examination of claims for compliance with the requirement for definiteness of 35 U.S.C. 112, second paragraph, is whether the claim meets the threshold requirements of clarity and*

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*precision, not whether more suitable language or modes of expression are available. When the examiner is satisfied that patentable subject matter is disclosed, and it is apparent to the examiner that the claims are directed to such patentable subject matter, he or she should allow claims which define the patentable subject matter with a reasonable degree of particularity and distinctness. Some latitude in the manner of expression and the aptness of terms should be permitted even though the claim language is not as precise as the examiner might desire. . . . The essential inquiry pertaining to this requirement is whether the claims set out and circumscribe a particular subject matter with a reasonable degree of clarity and particularity."*

Furthermore, M.P.E.P. § 2713.05(a) provides that "if the scope of a claim would be reasonably ascertainable by those skilled in the art, then the claim is not indefinite."

Here, there is only one cell referred to in claims 1-4. Applicants respectfully submit that there can be no possible confusion "as to which cell the claim in (sic) referring to" since there is only one cell recited.

Accordingly, Applicants respectfully request that the claim objections be withdrawn.

### 35 U.S.C. §§ 102 and 103

The Office Action rejects: claims 1-3 under 35 U.S.C. § 102 over Lin et al. U.S. patent 5,615,150 ("Lin"); claims 1-3 under 35 U.S.C. § 102 over Sharpe-Geisler et al. U.S. patent 5,646,901 ("Sharpe-Geisler"); claim 4 under 35 U.S.C. § 103 over Lin in view of Applicant's Admitted Prior Art ("AAPA"); and claim 4 under 35 U.S.C. § 103 over Sharpe-Geisler in view of AAPA.

Applicants respectfully submit that claims 1-4 are all patentable over the cited prior art for at least the following reasons.

#### Claim 1

Among other things, in the erasable and programmable non-volatile cell of

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claim 1, the drain of the first transistor and the drain of the second transistor are electrically separated from each other such that drain currents of the first and second transistors can be determined separately from each other. As explained in the present specification, such a feature allows the first transistor to be used for programming the cell, and the second transistor to be used for reading the state of the cell.

Applicants respectfully submit that neither Lin nor Sharpe-Geisler discloses or suggests such a feature.

Accordingly, for at least this reason, Applicants respectfully submit that claim 1 is patentable over both Lin and Sharpe-Geisler.

#### Claims 2-3

Claims 2-3 depend from claim 1 and are deemed patentable for at least the reasons set forth above with respect to claim 1.

#### Claim 4

Among other things, in the cell of claim 4, an n-well diffusion region of the p-channel transistor is the control gate of said floating capacitor.

The Office Action fairly concedes that such a feature is not disclosed by either Lin or Sharpe-Geisler.

However, the Office Action claims that such a feature is disclosed by Applicants as "admitted prior art," citing page 3, lines 13-15 of the specification.

Applicants respectfully disagree.

The text at page 3, lines 13-15 is not "admitted prior art." Nowhere is the text at page 3, lines 13-15 described or identified as being "prior art." Indeed, to the contrary, the text beginning at page 2, line 16 and continuing through page 3, lines 13-15 and beyond is clearly identified as pertaining to "the invention" and embodiments thereof (see, e.g., page 2, lines 16, 22, and 28; page 3, lines 5, 7, 12, etc.). The fact that the specification teaches that the feature could inherently be provided with any CMOS process does not mean that the feature is inherently present in every CMOS cell. This is clearly evidenced by the fact that the feature is not present in the first embodiment of the invention, shown in FIGs. 3-5 (but IS

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present in the second embodiment shown in FIGs. 6-8).

Therefore, Applicants respectfully submit that no combination of the "true" AAPA with either Lin or Sharpe-Gelsler would produce the cell of claim 1.

Furthermore, even if such a feature was disclosed by the AAPA, Applicants would traverse the proposed combination as lacking any suggestion or motivation in the prior art (see M.P.E.P. § 2143.01). The Office Action fails to cite any teaching in the prior art in support of the proposed motivation. Furthermore, the Office Action fails to explain how or why the benefits that supposedly provide the motivation ("*faster electron tunneling rates*") would somehow be provided by modifying either Lin or Sharpe-Gelsler such that the n-well diffusion region of the p-channel transistor is the control gate of the floating capacitor.

Accordingly, for at least these reasons, Applicants respectfully submit that claim 4 is patentable over the cited prior art.

#### **NEW CLAIMS 9-13**

New claims 9-13 are deemed patentable over the cited prior art for at least the following reasons.

##### **Claim 9**

Claim 9 depends from claim 1 and is deemed patentable for at least the reasons set forth above with respect to claim 1.

##### **Claim 10**

Among other things, in the cell of claim 10, the n-channel transistor is adapted to program a data value into the cell by having appropriate programming voltages applied to its gate, source and drain, and the p-channel transistor is adapted to read the data value from the cell by having appropriate read voltages applied to its gate, source and drain.

Applicants respectfully submit that such a combination of features is not disclosed by the cited prior art.

Accordingly, for at least these reasons, Applicants respectfully submit that claim 10 is patentable over the cited prior art.

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Claims 11-13**JAN 23 2007**

Claims 11-13 depend from claim 10 and are deemed patentable over the cited prior art for at least the reasons set forth above with respect to claim 10, and for the following additional reasons.

Claim 11

In the cell of claim 11, the drain of the p-channel transistor is adapted to float when the data value is programmed into the cell, and the drain of the n-channel transistor is adapted to float when the data value is read from the cell.

Applicants respectfully submits that such a combination of features is not disclosed by the cited prior art.

Accordingly, for at least these reasons, Applicants respectfully submit that claim 11 is patentable over the cited prior art.

Claim 12

In the cell of claim 12, the n-well diffusion region of the p-channel transistor is the control gate of the floating capacitor.

Applicants respectfully submits that such a feature is not disclosed by the cited prior art.

Accordingly, for at least these reasons, Applicants respectfully submit that claim 12 is patentable over the cited prior art.

**CONCLUSION**

In view of the foregoing explanations, Applicants respectfully request that the Examiner reconsider and reexamine the present application, allow claims 1-4 and 9-13 and pass the application to issue. In the event that there are any outstanding matters remaining in the present application, the Examiner is invited to contact Kenneth D. Springer (Reg. No. 39,843) at (571) 283.0720 to discuss these matters.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment (except for the issue fee) to Deposit Account No. 50-0238 for any additional fees required under 37 C.F.R. §

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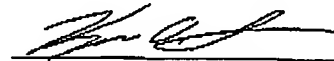
1.16 or under 37 C.F.R. § 1.17, particularly extension of time fees.

Respectfully submitted,

VOLENTINE FRANCOS & WHITT, P.L.L.C.

Date: 23 January 2007

By:



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